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Sequence Listing could not be accepted due to errors.
See attached Validation Report.
If you need help call the Patent Electronic Business Center at (866)
217-9197 (toll free).
Reviewer: Anne Corrigan
Timestamp: [year=2009; month=5; day=28; hr=12; min=33; sec=4; ms=333;]
=====

Reviewer Comments:

<140> 10/082,973
2002-02-26

Please insert a <141> at the beginning of the above "2002-02-26" line;
<141> is a mandatory numeric identifier indicating the current filing
date.

<210> 8
<211> 56
<212> DNA
<213> E. coli

Please spell out the Genus ("Escherichia") in the above <213> response;
per Sequence Rules, show the Genus species in that response. Same
response in subsequent sequences.

<210> 20
<211> 34
<212> DNA
<213> Mus musclus

Please change the above <213> response to "Mus musculus".

<210> 21
<211> 36
<212> DNA
<213> HBV

Please spell out the virus in the above <213> response; same in Sequence

22.

<210> 51

<211> 364

<212> DNA

213> Artificial Sequence

<220>

<223> pSnip ribozyme cassette

Please add an opening bracket ("<") to the above <213> numeric identifier. It must be <213>.

Application No: 10082973 Version No: 3.0

Input Set:**Output Set:**

Started: 2009-05-28 10:39:30.012
Finished: 2009-05-28 10:39:33.620
Elapsed: 0 hr(s) 0 min(s) 3 sec(s) 608 ms
Total Warnings: 45
Total Errors: 2
No. of SeqIDs Defined: 73
Actual SeqID Count: 73

Error code	Error Description
W 213	Artificial or Unknown found in <213> in SEQ ID (1)
W 213	Artificial or Unknown found in <213> in SEQ ID (2)
W 213	Artificial or Unknown found in <213> in SEQ ID (3)
W 213	Artificial or Unknown found in <213> in SEQ ID (4)
W 213	Artificial or Unknown found in <213> in SEQ ID (5)
W 213	Artificial or Unknown found in <213> in SEQ ID (6)
W 213	Artificial or Unknown found in <213> in SEQ ID (7)
W 402	Undefined organism found in <213> in SEQ ID (8)
W 402	Undefined organism found in <213> in SEQ ID (9)
W 402	Undefined organism found in <213> in SEQ ID (10)
W 402	Undefined organism found in <213> in SEQ ID (11)
W 402	Undefined organism found in <213> in SEQ ID (12)
W 402	Undefined organism found in <213> in SEQ ID (15)
W 213	Artificial or Unknown found in <213> in SEQ ID (18)
W 402	Undefined organism found in <213> in SEQ ID (20)
W 402	Undefined organism found in <213> in SEQ ID (21)
W 402	Undefined organism found in <213> in SEQ ID (22)
W 213	Artificial or Unknown found in <213> in SEQ ID (37)
W 213	Artificial or Unknown found in <213> in SEQ ID (38)
W 213	Artificial or Unknown found in <213> in SEQ ID (39)

Input Set:

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Actual SeqID Count: 73

Error code	Error Description
W 213	Artificial or Unknown found in <213> in SEQ ID (40)
W 213	Artificial or Unknown found in <213> in SEQ ID (41)
W 213	Artificial or Unknown found in <213> in SEQ ID (42)
W 213	Artificial or Unknown found in <213> in SEQ ID (43)
W 213	Artificial or Unknown found in <213> in SEQ ID (44)
W 213	Artificial or Unknown found in <213> in SEQ ID (45)
W 213	Artificial or Unknown found in <213> in SEQ ID (46)
W 213	Artificial or Unknown found in <213> in SEQ ID (47)
W 213	Artificial or Unknown found in <213> in SEQ ID (48) This error has occurred more than 20 times, will not be displayed
E 249	Order Sequence Error <212> -> <220>; Expected Mandatory Tag: <213> in SEQID (51)
W 402	Undefined organism found in <213> in SEQ ID (54)
W 402	Undefined organism found in <213> in SEQ ID (55)
W 402	Undefined organism found in <213> in SEQ ID (56)
W 402	Undefined organism found in <213> in SEQ ID (57)
W 402	Undefined organism found in <213> in SEQ ID (58)
W 402	Undefined organism found in <213> in SEQ ID (59)
W 402	Undefined organism found in <213> in SEQ ID (60)
W 402	Undefined organism found in <213> in SEQ ID (61)
W 402	Undefined organism found in <213> in SEQ ID (62)
W 402	Undefined organism found in <213> in SEQ ID (63)
W 402	Undefined organism found in <213> in SEQ ID (64) This error has occurred more than 20 times, will not be displayed

Input Set:

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Started: 2009-05-28 10:39:30.012
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Total Warnings: 45
Total Errors: 2
No. of SeqIDs Defined: 73
Actual SeqID Count: 73

Error code	Error Description
E 250	Structural Validation Error; Sequence listing may not be indexable

SEQUENCE LISTING

<110> Norris, James S.
 Clawson, Gary A.
 Schmidt, Michael G.
 Hoel, Brian D.
 Pan, Wei-Hua
 Dolan, Joseph W.

<120> TISSUE-SPECIFIC AND TARGET RNA-SPECIFIC RIBOZYMES

<130> 14017-0004002

<140> 10/082,973
 2002-02-26

<150> 09/338,942
 <151> 1999-06-24

<150> 60/090,560
 <151> 1998-06-24

<150> 60/096,502
 <151> 1998-08-14

<160> 73

<170> FastSEQ for Windows Version 4.0

<210> 1
 <211> 492
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> ARN promoter

<400> 1
 actcgcgggat catcttcacc atcggccgca actcctgcgg gatatacctcg tcctcctcct 60
 ccaccggcac ccccatggta gcggccagct cgcgccctgc ctgggaaagc tgtacatgct 120
 gatcggcggc gtcgggtgccg gcggccgggt ctccgcctg ctcggcgggtg ccggtccgtg 180
 cggccttgga gtccgcggcg gcgcgcgatg agggcggcac ctgggtggtg atccagccac 240
 tgaggggtcaa cattccagtc actccgggaa aaatggaatt ctccattgg atcggcccac 300
 gcgtcgcgaa cttgagcccc cttttcgtcg cccttgaca ggggtgcgaca ggtagtcgca 360
 gttgtttgac gcaagtcact gattggaaac gccatcggcc tgtcagaaat ggtegttgcc 420
 agacctatgg ctggcacccg catcgcggct gcgttaccct tactcctgtt gtgcctttaa 480
 cctagcaagg ac 492

<210> 2
 <211> 1113
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> PROC promoter

```

<400> 2
aattcctcga agtccttgcg ctgcttgctg ttcattgatgt cgtagatcag cgcattgcacc      60
tgcttggtgt ccagcgggtgg cagggttgatc cggcggtacat cgccatccac ccggatcatg     120
ggtggcaggc cggcggagag gtgcagggtcc gaagcgccct gtttggcact gaaggcgagc     180
agctcggtaa tatccatggg actccccaat tacaagcaag caggtagaat gccgccaaag     240
ccgccgtctc ggacaaggaa aacaccggat gagccagggt gcttccagga cagcgtggt      300
gtcctgcgcc agacgcggaa cctcgacact ggaacaggaa gatggccatc gaggccggcg     360
gtttcgaggg cgtcgagccg acgccgaccg cacttccata gggcgaggt aatgtccacg     420
atagcagaga atattgcaaa ggttgccgcg cgcattccgtg aggcagcgca agctgcgggg     480
cgcgatccgg ccacggtcgg cctgctcgcc gtgagcaaga ccaagcccg cgcgcgggtg     540
cgcgaggcgc acgccgcccg ccttcgcgac ttcggcgaaa actacctgca ggaggccctc     600
ggcaagcagg ccgaactggc cgacctgccc ttgaactggc acttcatcgg ccccatccag     660
tcgaacaaga cgcggcccat cgccgagcat ttccagtggg tgcactcggg ggaccgggtg     720
aagatcgcg agcgctgtc ggagcaacgc ccggccgggg tgcgcgccct gaatgtctgc     780
ctgcagggtc acgtcagcgg cgaagccagc aagtccggct gcgccccga ggacctgccg     840
gccctggccg aggccgtgaa gcaactgccc aacctccgat tgcgtggcct gatggccatc     900
cccgaacca ccgccgaacg cgcgcgcgaa cagcgcgctg tcgcccgcct gcgcgaactg     960
ctgctggacc tgaaccttgg cctggacacc ctgtccatgg gcatgagcga cgacctcgag    1020
gcagccatcg gcgaagggtg gacctgggtc cgcattcggt ccgccctgtt cggcgcccgc    1080
gactacggcg cgcggcttc ttgaatgaat ccc                                     1113

```

```

<210> 3
<211> 66
<212> DNA
<213> Artificial Sequence

```

```

<220>
<223> ARC promoter

```

```

<400> 3
ctagagctat tgatgtggat caacattgtc cactagccgc tgccgcctaa tctccagaat      60
tgtgag                                           66

```

```

<210> 4
<211> 685
<212> DNA
<213> Artificial Sequence

```

```

<220>
<223> UPCM2 cassette sequence

```

```

<400> 4
tcagaaaatt attttaaatt tccaattgac attgtgagcg gataacaata taatgtgtgg      60
aagcttatcg ataccgtcga cctcgaagct ttggaaccct gatgagtccg tgaggacgaa     120
acgatgacat tctgctgacc agattcacgg tcagcagaat gtcactcgtc gttccaggat     180
ccggctgcta acaaagcccg aaaggaagct gagttggctg ctgccaccgc tgagcaataa     240
ctagcataac cccttggggc ctctaaacgg gtcttgaggg gtttttttgct gaaaggagga     300
actatatccg gatatcccgc aagaggcccg gcagtaccgg cataaccaag cctatgccta     360
cagcatccag ggtgacgggt ccgaggatga cgatgagcgc attgttagat ttcatacacg     420
gtgcctgact gcgttagcaa tttaactgtg ataaactacc gcattaaagc ttatcgatga     480
taagctgtca aacatgagaa ttcggcgtat acgccgaatt tcaagggctc gcgcaacgac     540
gacgatgagg taccacatcg tcgtcgttgc gactgatga ggccgtgagg ccgaaaccct     600
tgacgcgtaa aaaaaaccgc ccccggcggg ttttttacc ttcctatgcg gccgctctag     660
tcgagggggg gcccgctaga actag                                           685

```

```

<210> 5
<211> 673

```

<212> DNA

<213> Artificial Sequence

<220>

<223> P2CM2 cassette sequence

<400> 5

agaaagcaaa aataaatgct tgacactgta gcggaaggc gtataatgga attgtgagcg

60

gataacaatt cacaagctta tcgataccgt cgacctcgag ctttggaacc ctgatgagtc

120

cgtgaggacg aaacgatgac attctgctga ccagattcac ggtcagcaga atgtcatcgt

180

cggttccagg atccggctgc taacaaagcc cgaaaggaag ctgagttggc tgctgccacc

240

gctgagcaat aactagcata accccttggg gcctctaaac gggctttgag gggttttttg

300

ctgaaaggag gaactatatc cggatatccc gcaagaggcc cggcagtacc ggcataacca

360

agcctatgcc tacagcatcc agggtgacgg tgccgaggat gacgatgagc gcattgttag

420

atttcataca cggtgccctga ctgcgttagc aatttaactg tgataaacta ccgcattaaa

480

gcttatcgat gataagctgt caaacatgag aattcggcgt atacgccgaa tttcaagggt

540

ctgcgcaacg acgacgatga ggtaccacat cgtcgtcgtt gcgactgat gaggccgtga

600

ggccgaaacc cttgacgcgt aaaaaaacc cgccccggcg ggttttttac gcgttcctat

660

gcggccgctc tag

673

<210> 6

<211> 14

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<400> 6

agctcgagct caga

14

<210> 7

<211> 17

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<400> 7

tcgacggatc tagatcc

17

<210> 8

<211> 56

<212> DNA

<213> E. coli

<400> 8

agatctaaat cattcacctg atgagtcctg gaggacgaaa ctttagcaaa ccaagg

56

<210> 9

<211> 54

<212> DNA

<213> E. coli

<400> 9

agatctaaat tcgtttctga tgagtccgtg aggacgaaac accacaaaag atct	54
<210> 10	
<211> 54	
<212> DNA	
<213> E. coli	
<400> 10	
agatctaaac cacatcctga tgagtccgtg aggacgaaac agtttaaacc aagg	54
<210> 11	
<211> 55	
<212> DNA	
<213> E. coli	
<400> 11	
agatctaaac gatttcctga tgagtccgtg aggacgaaac atcaccaaacc caagg	55
<210> 12	
<211> 56	
<212> DNA	
<213> E. coli	
<400> 12	
agatctaaat gcgtctgatg agtccgtgag gacgaaacag gcaggtaaaa ccaagg	56
<210> 13	
<211> 53	
<212> DNA	
<213> Streptomyces lividans	
<400> 13	
agatctaaag tactcctgat gagtccgtga ggacgaaacc agcgaaacca agg	53
<210> 14	
<211> 55	
<212> DNA	
<213> Enterococcus faecalis	
<400> 14	
agatctaaaa cttttgctga tgagtccgtg aggacgaaac gtgtataaac caagg	55
<210> 15	
<211> 54	
<212> DNA	
<213> Psudeomonas putida	
<400> 15	
agatctaaat cgctttctga tgagtccgtg aggacgaaac gtgataaacc aagg	54
<210> 16	
<211> 54	
<212> DNA	
<213> Streptomyces coelicolor	
<400> 16	
agatctaaag tcgatgctga tgagtccgtg aggacgaaac ttcgcaaacc aagg	54

<210> 17
 <211> 56
 <212> DNA
 <213> Staphylococcus warneri

 <400> 17
 agatctaaat gcgtctgatg agtccgtgag gacgaaacag gcaggcgaaa ccaagg 56

 <210> 18
 <211> 38
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> B2 consensus

 <400> 18
 tgctcttctg atgagtccgt gaggacgaaa ccgcctga 38

 <210> 19
 <211> 39
 <212> DNA
 <213> Mus musculus

 <400> 19
 ttcaaagact gatgagtccg tgaggacgaa acgaggatc 39

 <210> 20
 <211> 34
 <212> DNA
 <213> Mus musculus

 <400> 20
 gtccatctga tgagtccgtg aggacgaaac cggc 34

 <210> 21
 <211> 36
 <212> DNA
 <213> HBV

 <400> 21
 attagagctg atgagtccgt gaggacgaaa caaacg 36

 <210> 22
 <211> 37
 <212> DNA
 <213> HPV

 <400> 22
 gtcctgactg atgagtccgt gaggacgaaa cattgca 37

 <210> 23
 <211> 44
 <212> DNA
 <213> Homo sapiens

 <400> 23

<p> tccgttgtct ctgatgagtc cgtgaggacg aaacatgaca ccga </p>	44
<p> <210> 24 </p>	
<p> <211> 39 </p>	
<p> <212> DNA </p>	
<p> <213> Homo sapiens </p>	
<p> <400> 24 </p>	
<p> gcgaggagct gatgagtccg tgaggacgaa acatggtgt </p>	39
<p> <210> 25 </p>	
<p> <211> 37 </p>	
<p> <212> DNA </p>	
<p> <213> Mus musculus </p>	
<p> <400> 25 </p>	
<p> aacttttctg atgagtccgt gaggacgaaa cataatg </p>	37
<p> <210> 26 </p>	
<p> <211> 42 </p>	
<p> <212> DNA </p>	
<p> <213> Rattus norvegicus </p>	
<p> <400> 26 </p>	
<p> tcgaagctgt ctgatgagtc cgtgaggacg aaaccgcgtt ga </p>	42
<p> <210> 27 </p>	
<p> <211> 37 </p>	
<p> <212> DNA </p>	
<p> <213> Mus musculus </p>	
<p> <400> 27 </p>	
<p> atcagggctct gatgagtccg tgaggacgaa aggtgcc </p>	37
<p> <210> 28 </p>	
<p> <211> 37 </p>	
<p> <212> DNA </p>	
<p> <213> Rattus norvegicus </p>	
<p> <400> 28 </p>	
<p> tcttcgactg atgagtccgt gaggacgaaa catggct </p>	37
<p> <210> 29 </p>	
<p> <211> 37 </p>	
<p> <212> DNA </p>	
<p> <213> Homo sapiens </p>	
<p> <400> 29 </p>	
<p> tagcacactg atgagtccgt gaggacgaaa cgtttga </p>	37
<p> <210> 30 </p>	
<p> <211> 36 </p>	
<p> <212> DNA </p>	
<p> <213> Homo sapiens </p>	
<p> <400> 30 </p>	
<p> tgcaatactg atgagtccgt gaggacgaaa ctgcct </p>	36

<210> 31
<211> 36
<212> DNA
<213> Homo sapiens

<400> 31
aagtcacctg atgagtcctg gaggacgaaa cctgga 36

<210> 32
<211> 36
<212> DNA
<213> Homo sapiens

<400> 32
gataaggctg atgagtcctg gaggacgaaa ctttcc 36

<210> 33
<211> 36
<212> DNA
<213> Homo sapiens

<400> 33
catattcctg atgagtcctg gaggacgaaa cactcg 36

<210> 34
<211> 38
<212> DNA
<213> Homo sapiens

<400> 34
tcatgtatct gatgagtcctg tgaggacgaa acaaaagg 38

<210> 35
<211> 36
<212> DNA
<213> Homo sapiens

<400> 35
ggttaaaactg atgagtcctg gaggacgaaa cttggg 36

<210> 36
<211> 36
<212> DNA
<213> Homo sapiens

<400> 36
gtccagtctg atgagtcctg gaggacgaaa cttaag 36

<210> 37
<211> 55
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 37
 cccgggaatt cgtgatggcc acgcggccgc tcgagctctg atgagtccgt gagga 55

<210> 38
 <211> 59
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> primer

<400> 38
 gacgggatcc agatctgagc tcgagctgac ggtaccgggt accgtttcgt cctcacgga 59

<210> 39
 <211> 55
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> primer

<400> 39
 gagctcagat ctggatccgt cgacggatct agatccgtcc tgatgagtcc gtgag 55

<210> 40
 <211> 46
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> primer

<400> 40
 ttgcttggcc agcggccgct gcagatccgt ttcgtcctca cggact 46

<210> 41
 <211> 41
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> primer

<400> 41
 gatctgctct tctgatgagt ccgtgaggac gaaaccgctg a 41

<210> 42
 <211> 41
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> primer

<400> 42
 gatctcagcg gtttcgtcct cacggactca tcagaagagc a 41

<210> 43
<211> 64
<212> DNA
<213> Artificial Sequence

<220>
<223> ribozyme construct

<400> 43
cttgggaaccg gatgccaggc atccggttgg tgcctttcgt cctcacggac tcatcagtag 60
tgaa 64

<210> 44
<211> 65
<212> DNA
<213> Artificial Sequence

<220>
<223> ribozyme construct

<400> 44
cttgggaaccg gatgccaggc atccggttaa gaagtttcgt cctcacggac tcatcagtta 60
cccta 65

<210> 45
<211> 65
<212> DNA
<213> Artificial Sequence

<220>
<223> ribozyme construct

<400> 45
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atctg 65

<210> 46
<211> 64
<212> DNA
<213> Artificial Sequence

<220>
<223> ribozyme construct

<400> 46
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gtgg 64

<210> 47
<211> 63
<212> DNA
<213> Artificial Sequence

<220>
<223> ribozyme construct

<400> 47
 aattcaaccg gatgccaggc atccggttca gccttttcgtc ctcacggact catcagtgtg 60
 ttg 63

<210> 48
 <211> 64
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> ribozyme construct

<400> 48
 aattcaaccg gatgccaggc atccggttaa ccttttttcgt cctcacggac tcatcagctc 60
 tacg 64

<210> 49
 <211> 170
 <212> RNA
 <213> Artificial Sequence

<220>
 <223> pClip triple ribozyme

<221> modified_base
 <222> (1)...(170)
 <223> n=a, c, g, or u

<400> 49
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 gagaucunnn nnnncugaug aguccgugag gacgaaannn nnagauccgu cgacgggaucu 120
 agauccgucc ugaugagucc gugaggacga aacggaucug cagcggccgc 170

<210> 50
 <211> 249
 <212> RNA
 <213> Artificial Sequence

<220>
 <223> pChop triple ribozyme

<220>
 <221> modified_base
 <222> (1)...(249)
 <223> n=a, c, g, or u

<400> 50
 aagcuuugga acccugauga guccgugagg acgaaacgau gacauucugc ugaccagauu 60
 cacggucagc agaaugucau cgucgggucc aggauccnnn nnnncugauga guccgugagg 120
 acgaaannnn nnnnnnggaau uccaaggguc ugcgcaacga cgacgaugag guaccacauc 180
 gucgucguug cgcacugaug aggccgugag gccgaaaccc uugacgcguu ccuaugcggc 240
 cgcucuaga 249

<210> 51
 <211> 364
 <212> DNA

213> Artificial Sequence

<220>

<223> pSnip ribozyme cassette

<400> 51

aagcttcgag ctctgatgag tccgtgagga cgaaacggta cccggtaccg tcagctcgac	60
ctcagatctc tcgagcaatt gatccgtcga cggatgtaga tccgtcctga tgagtccgtg	120
aggacgaaac ggatctgcag cggatatcca gctttggaac cctgatgagt ccgtgaggac	180
gaaacgatga cattctgctg accagattca cggtcagcag aatgtcatcg tcggttccag	240
gaccttgcc tgaattccaa gggctctgcgc aacgacgacg atgaggtacc acatcgtcgt	300
cgttgcgcac tgatgaggcc gtgaggccga aacccttgac gcgttcctat gcggccgctc	360
taga	364

<210> 52

<211> 685

<212> DNA

<213> Artificial Sequence

<220>

<223> modified pChop cassette

<400> 52

tcagaaaatt attttaaatt tccaattgac attgtgagcg gataacaata taatgtgtgg	60
aagcttatcg ataccgtcga cctcgaagct ttggaaccct gatgagtccg tgaggacgaa	120
acgatgacat tctgctgacc agattcacgg tcagcagaat gtcatcgtcg gtccaggat	180
ccggtgcta acaaagcccg aaaggaagct gagttggctg ctgccaccgc tgagcaataa	240
ctagcataac cccttggggc ctctaaacgg gtcttgaggg gttttttgct gaaaggagga	300
actatatccg gatatcccg aagaggcccg gcagtaccgg cataaccaag cctatgccta	360
cagcatccag ggtgacggtg ccgaggatga cgatgagcgc attgttagat ttcatacacg	420
gtgcctgact gcgttagcaa tttaactgtg ataaactacc gcattaaagc ttatcgatga	480
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